

WHAT IS CLAIMED IS:

1. A method of identifying a drag gesture, with which the drag gesture is performed on a touch device, the method comprising follow steps:

5 i. detecting a first appearance of an object on the touch device;

 ii. detecting a second appearance of the object on the touch device; and

 iii. a sum of time duration of the first appearance and time span between an end of the first appearance time duration and a start of the second appearance being smaller than a first reference time and meeting one of following two situation, then generating a drag signal:

15 (C) another summation of the first appearance time duration, the time span and a second appearance time duration being not less than the reference time value; and

 (D) an accumulated displacement of the second appearance time duration being not less than a reference displacement.

20 2. The method of identifying a drag gesture as defined in claim 1, wherein the drag signal is generated once at the summation of the first appearance time duration, the time span between the end of the first appearance time duration and the start of the second time duration and the
25 second appearance time duration exceeds the reference time value.

30 3. The method of identifying a drag gesture as defined in claim 1, wherein the drag signal is generated once the accumulated displacement of the second appearance time duration is not less than the reference displacement.

 4. The method of identifying a drag gesture as defined

in claim 1, wherein the drag signal is generated once the first appearance time duration is greater than a first minimum tap reference time value.

5 5. The method of identifying a drag gesture as defined in claim 1, wherein the drag signal is generated once the second appearance time duration is greater than a second minimum tap reference time value

10 6. The method of identifying drag gesture as defined in claim 1, wherein the drag signal is generated once the time span between the end of the first appearance time duration and the start of the second time duration is greater than a first minimum raised up reference time value.

15 7. The method of identifying a drag gesture as defined in claim 1, wherein the touch device transmits the drag signal to the main unit.

8. A controller of a touch device for identifying movements of an object on the touch device, comprising:

20 an operational unit, detecting every appearance of the object on the touch device and producing a respective tap signal and the respective tap signal being generated corresponding to a start of the appearance on the touch device and being terminated when that appearance has already finished; and

25 A gesture unit, being connected to the operational unit so as to receive the tap signal and based on the tap signal to calculate the time duration of the object appearing on the touch device and then identify the action of the object;

30 wherein, the gesture unit receives from the operational unit a first tap signal and a second tap signal corresponding to the first and second appearance of the

object on the touch device respectively; the gesture unit also computes a summation of time duration of the first appearance and time span between an end of the first appearance time duration and a start of the second appearance being less than a first reference time and compares the result with the first reference time and if it qualifies one of the two conditions below, the gesture unit will produce a corresponding drag signal:

) A) if the summation of the first appearance time duration, the time span between the end of the first appearance time duration and the start of the second appearance is not less than a reference time value; and

B) If the accumulated displacement of the second appearance time duration is not less than a reference displacement.

9. The controller of a touch device for identifying a drag gesture as defined in claim 8, wherein the gesture unit generates the drag signal at the time of an accumulated time of the first appearance time duration, the time span and the second appearance time duration exceeds the reference time.

10. The controller of a touch device for identifying a drag gesture as defined in claim 8, wherein the gesture unit generates the drag signal once the accumulated displacement is not less than the reference displacement within the second appearance time duration.

11. The controller of a touch device for identifying a drag gesture as defined in claim 8, wherein the gesture unit generates the drag signal once the first appearance time duration is greater than a first minimum tap reference time value.

12. The controller of a touch device for identifying a

drag gesture as defined in claim 8, wherein the gesture unit generates the drag signal when the second appearance time duration is larger than the second minimum tap reference time.

5 13. The controller of a touch device for identifying a drag gesture as defined in claim 8, wherein the gesture unit generates the drag signal once the time span is greater than the first minimum UP reference time.

10 14. The controller of a touch device for identifying a drag gesture as defined in claim 8, wherein the controller further includes a transmitter interface connected to the gesture unit for transmitting the drag signal to a main unit.

15 15. A gesture unit of the touch device for identifying movement of an object on the touch device; wherein the gesture unit receives from the touch device a first tap signal and a second tap signal generated corresponding to a first and second appearances of the object on the touch device respectively, computes a sum of a first appearance time duration and a time span between an end of the first appearance and a start of the second appearance and compares
20 the sum with the a first reference time and in case of the sum being smaller than the first reference time value, a determination is done after one of two following conditions being met and the gesture unit generates a corresponding drag gesture:

25 A) If the sum of the first appearance time duration, the time span is not less than a reference time value; and

 B) If an accumulated displacement of the second appearance time duration is not less than a reference displacement.

30 16. The gesture unit of the touch device as defined in claim 15, wherein the drag signal is generated once the sum

of the first appearance time duration, the time span and the second appearance time duration is greater than the reference time value.

5 17. The gesture unit of the touch device as defined in claim 15, wherein the drag signal is generated once the accumulated displacement of the second appearance time duration is not less than the reference displacement.

10 18. The gesture unit of the touch device as defined in claim 15, wherein the drag signal is generated in case of the first appearance time duration is greater than the first minimum tap reference time.

15 19. The gesture unit of the touch device as defined in claim 15, wherein the drag signal is generated in case of the second appearance time duration is greater than a second minimum tap reference time.

20 20. The gesture unit of the touch device as defined in claim 15, wherein the drag signal is generated in case of the time span is greater than a first minimum raised up reference time.

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